Environmental Management Services Company
1413 West 57th Street
Loveland, CO 80538
(970) 461-0571 * FAX (970) 461-0591

November 4, 1999

Mr. Dennis Frederick
Division of Water Quality
288 North 1460 West
Salt Lake, City, UT 84114

Mr. D. Wayne Hedberg
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah, 84114

Re: Tintic Dry Stack Tailings Pre-Design Meeting

Dear Dennis and Wayne;

Enclosed please find two copies of the Project Introduction to the Tintic Dry Stack Tailings Project prepared as background to our pre-design meeting scheduled to be held at 10 a.m. Wednesday November 10, 1999. Thank you for scheduling this meeting on short notice and we look forward to discussing the project with your two groups.

Sincerely,

Thomas E. Gast
Principal

Encl.
Cc. Paul Spor and Greg Smith, Tintic Utah Metals, LLC
Ed Schneider and Deb Miller, ESA Consultants Inc.

TINTIC DRY STACK TAILINGS PRE-DESIGN MEETING
Project Introduction

Utah Division of Water Quality
Utah Division of Oil, Gas and Mining

10 a.m. Wednesday November 10, 1999
1594 West North Temple, Room 2130
Salt Lake City, Utah 84114

Project Proponent:
Tintic Utah Metals, LLC
15988 Silver Pass Road
Eureka, Utah, 84628
Paul Spor, Executive Director
435 / 433-6606

November 1, 1999

TINTIC DRY STACK TAILINGS PRE-DESIGN MEETING
UTAH DWQ/DOGM

Proponents Representatives

Paul Spor, Executive Director
Greg Smith, Mill Superintendent
Tintic Utah Metals, LLC
PO Box 51
15988 Silver Pass Road
Eureka, UT 84628
Voice 435 / 433-6606
Fax 435 / 433 - 6606

Ed Schneider, P.G., Hydrogeologist
Debora Miller, P.E., Ph.D., Geotechnical Engineer
ESA Consultants Inc.
2637 Midpoint Drive
Suite F
Fort Collins, CO 80525
Voice 970 / 484-3611
Fax 970 / 484-4118

Tom Gast, Principal
Environmental Management Services Company
1413 West 57th Street
Loveland, CO 80538
Voice 970 / 461-0571
Fax 970 / 461-0591

Presentation Outline

1.0 Introductions (Tom Gast)

2.0 Project History and Status (Paul Spor)

3.0 Mill Flow Sheet (Greg Smith)

4.0 Dry Stack Facility Introduction (Tom Gast)

5.0 Design Considerations and Site Characteristics (Ed Schneider)

6.0 Dry Stack Facility Conceptual Design (Deb Miller)

7.0 Monitoring and Closure (Tom Gast)

8.0 Summary (Tom Gast)

9.0 Comments, Questions and Answers

Introduction

The Tintic Mill is located in the East Tintic Mining District, Utah County, Utah (Exhibit A). In 1984 the property was the subject of an approved Mining and Reclamation Plan filed with DOGM (File Number ACT/049/009) by the property's lessee. Chief Consolidated Mining Company took control of its property in 1993 and continued the property's exploration program. Chief and its partners formed a new company in 1996 for the purpose of returning the property to production. The new company, Tintic Utah Metals, LLC, has prepared a request to transfer the current Mining and Reclamation Permit to Tintic Utah Metals LLC. Upon approval of the transfer, Tintic Utah Metals LLC will assume all reclamation responsibility for the property.

Because of changes to the mining plan resulting from Tintic Utah Metals, LLC current feasibility studies and delays in agency approval of the proposed dewatering plan for one of its mines in the district, the LLC has decided that immediate production could best be gained from known ore bodies above the water table. Therefore the DOGM permit transfer will be modified to reflect this change in mining plans and application will be made to DWQ to allow construction of the dry stack tailings disposal system. The purpose of the November 10, 1999 joint meeting with DWQ and DOGM is to discuss the conceptual dry stack tailings disposal system.

Initial production will come from the existing permitted Trixie and Apex No. 2 mines. Precious metal bearing ore will be mined by conventional underground methods, hoisted to the surface and placed into a loading bin. The ore will be truck hauled from the mines and placed in a surge pile at the concentrator. From the surge pile, the ore will be conveyed to the crushing plant, which includes a primary jaw crusher and a secondary cone crusher along with screen decks. While the ore will be moist, water spray bars will be used to control dust as necessary. Necessary air permits will be filed in November 1999 for the crushing circuit. Crushed ore will be conveyed to the two existing 750-ton fine ore storage bins. Fine ore will be conveyed to the 10-foot by 66-inch ball mill for wet grinding at a rate of 16 tons per hour (384 tons per day, 135,000 tons per year). After grinding, the slurry will be pumped to the gravity circuit and then the flotation plant where various flotation chemicals will be added and the finely ground pulp will be circulated through a series of flotation cells, thickeners and filters. Gold and silver will be produced and shipped for final processing.

The existing concentrator, including crushing and grinding circuits, was commissioned in 1967 and it operated until 1978. Tintic Utah Metals, LLC is in the process of completely renovating the concentrator. Necessary maintenance to the building has been completed or contracted. The crushing and grinding circuits have been rebuilt. A new gravity circuit has been ordered and it will be installed as soon as it is delivered. The old flotation equipment has been removed and modern equipment will be installed.

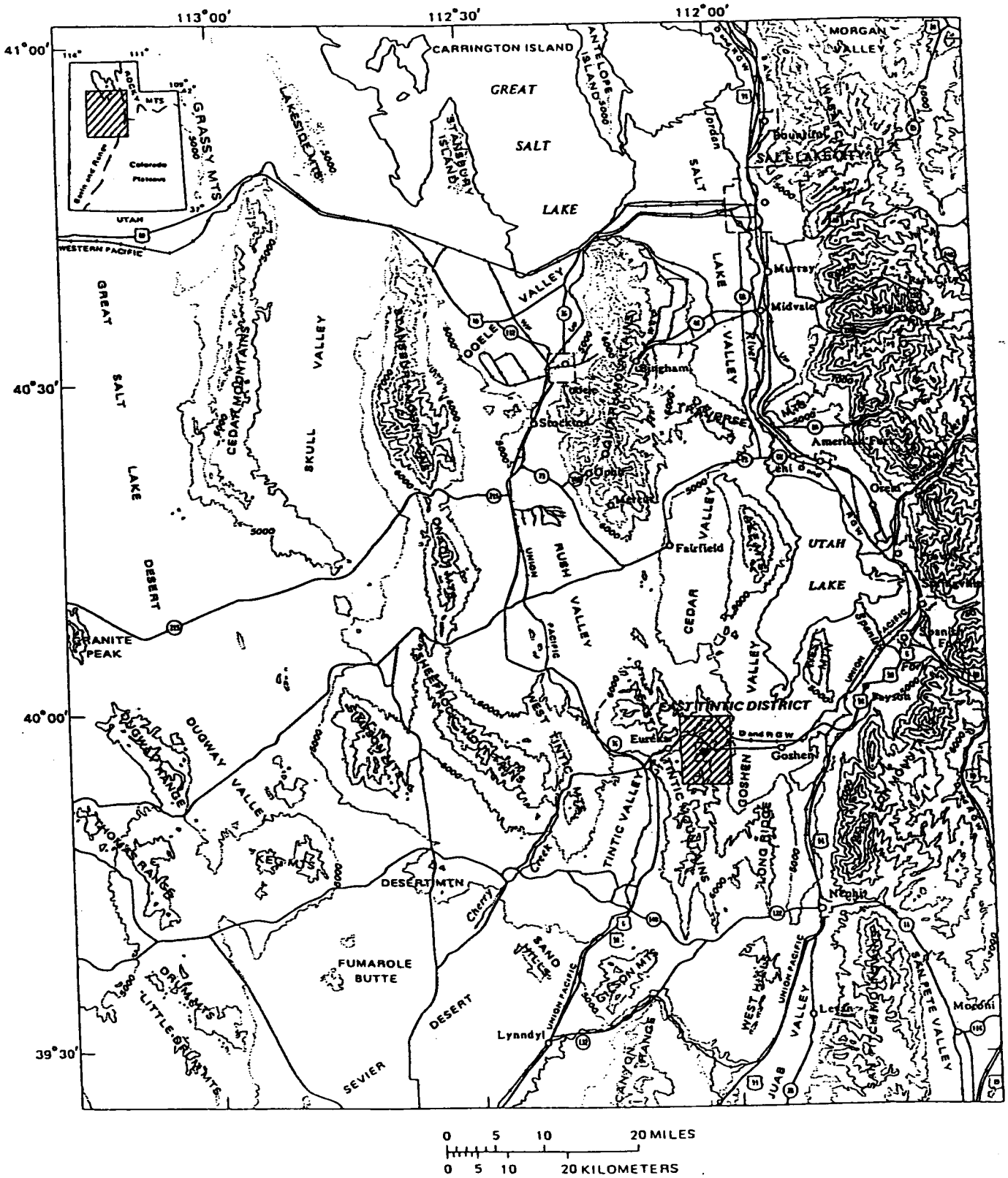
Tailings will be routed to a thickener and reagents added to improve settling. From the thickener, the tailings will be pumped to a filter where the moisture content will be

reduced to between 15 and 20 percent. Recovered solutions will recycle to the processing circuit and the dry tailings will be conveyed to a loading area. The dry tailings will be loaded into dump trucks and hauled approximately ½ mile to the proposed dry stack tailing facility. The location of the dry stack facility is shown on Exhibit B. Also shown on this exhibit is the land ownership boundary. Shown on Exhibit C are the facility's watershed boundary and a one-mile radius from the facility. Exhibit D is a 1996 USGS aerial photo of the facility area.

Contrasted with conventional tailings disposal in a tailings pond, dry stacked tailings are unsaturated and disposed of in an engineered waste pile. Consequently, from a ground water protection perspective, DWQ's mine waste pile requirements are appropriate rather than those directed toward tailings ponds or lagoons.

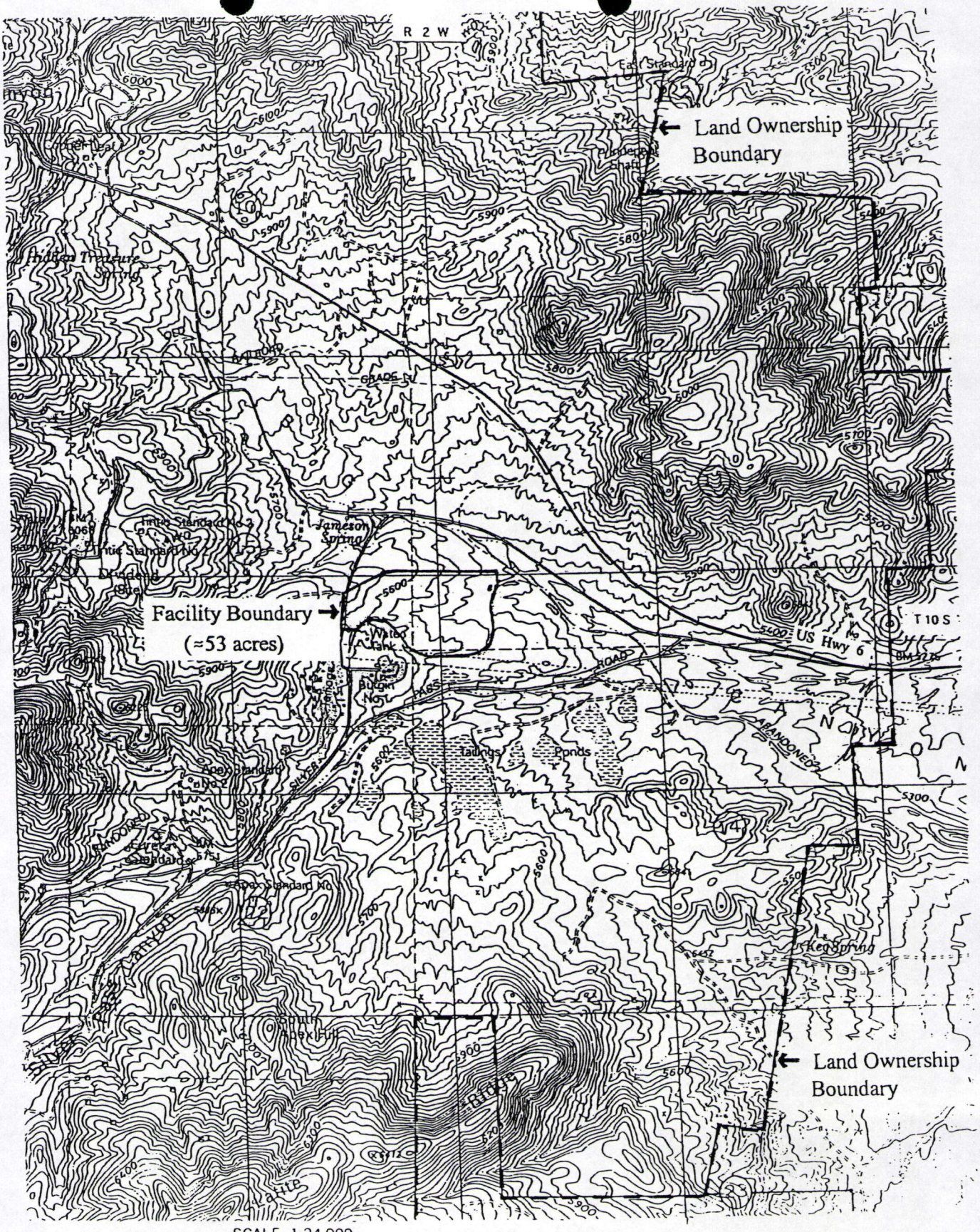
Initial construction activities at the dry stack facility will include removal of vegetation, stockpiling topsoil, and construction of the surface water diversion, sediment control pond and toe buttress. Filtered tailings will be delivered to the facility by truck and the dry stack pile will be constructed using loaders and a radial stacker. As shown on the dry stack facility conceptual drawings, the pile will be built from the toe buttress upslope. Building the pile sequentially will minimize disturbance, and topsoil stripped in years two through five will be directly placed on the completed portions of the pile. Concurrent reclamation activities will include soil placement, fertilization and seeding on an annual basis.

The facility's site characterization including topography, soils, climate, geology, hydrology, surface and ground water, and design considerations will be discussed during the presentation. Finally to be discussed is the facility's conceptual design and expected performance as supported by appropriate modeling.



Facility Location Map
East Tintic Mining District

Exhibit A



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1 MILE

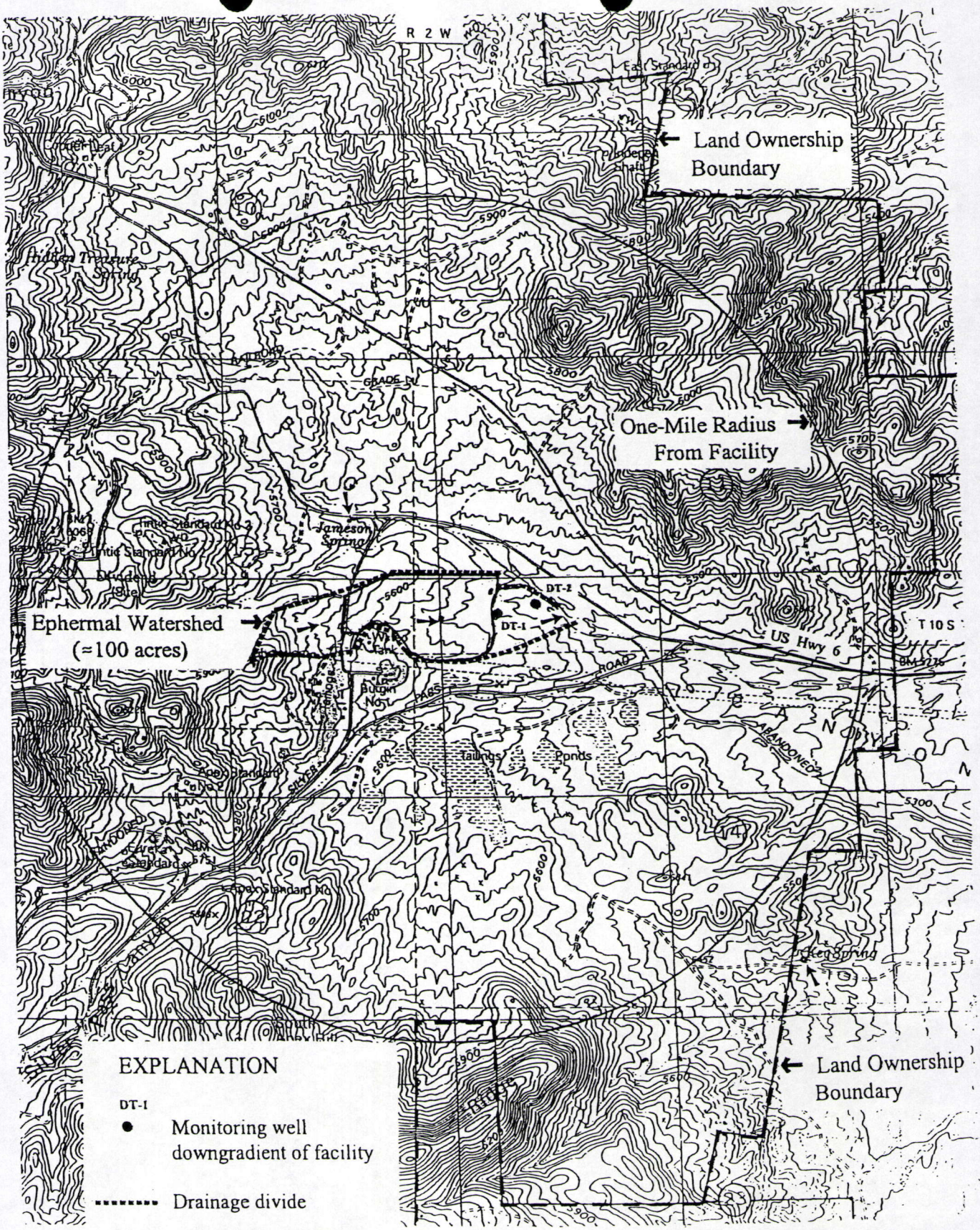
7000 FEET

1 KILOMETER

CONTOUR INTERVAL 25 FEET

Facility Area
and
Land OwnershipMap

Exhibit B



Facility Area Watershed, Wells and Springs

Exhibit C

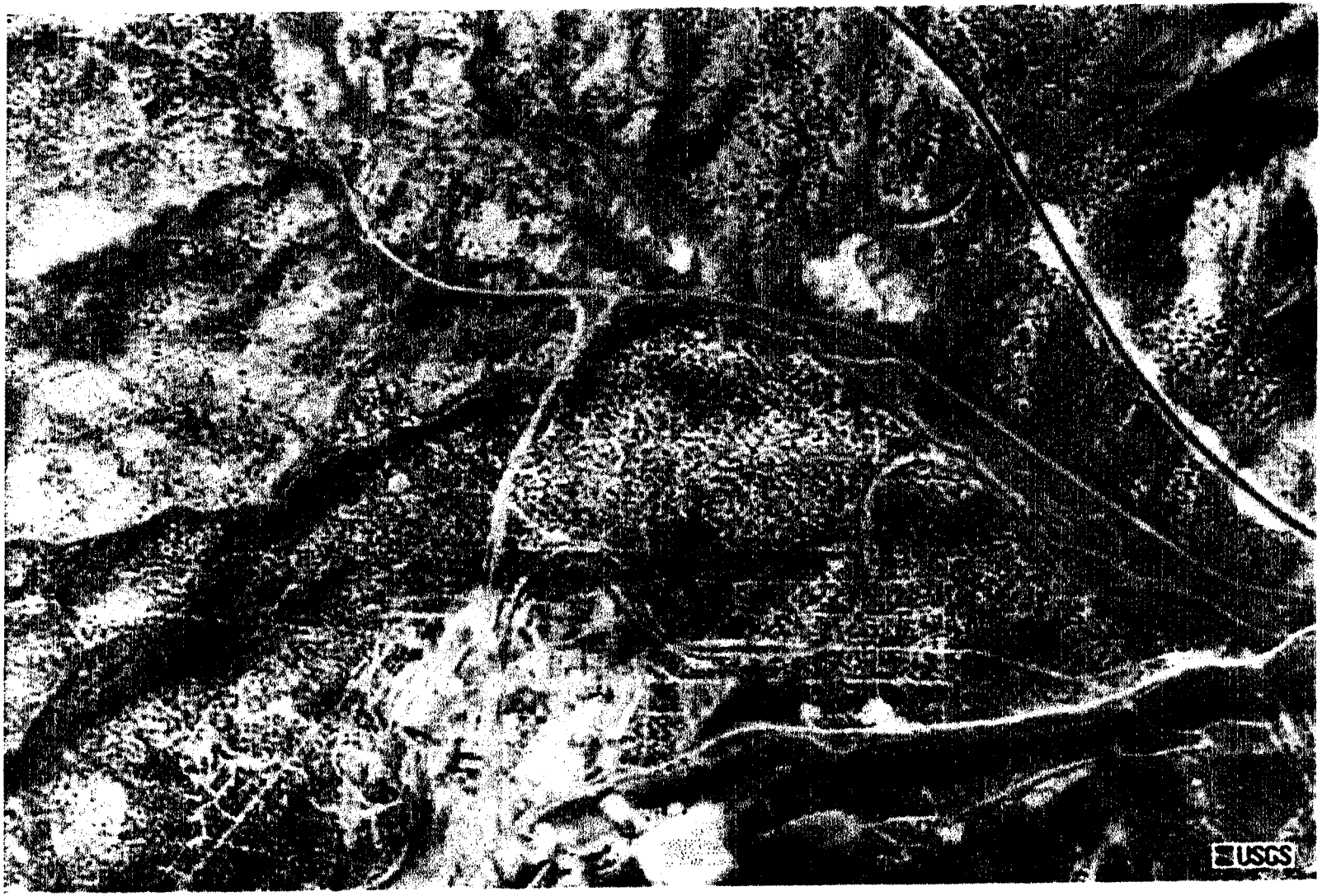
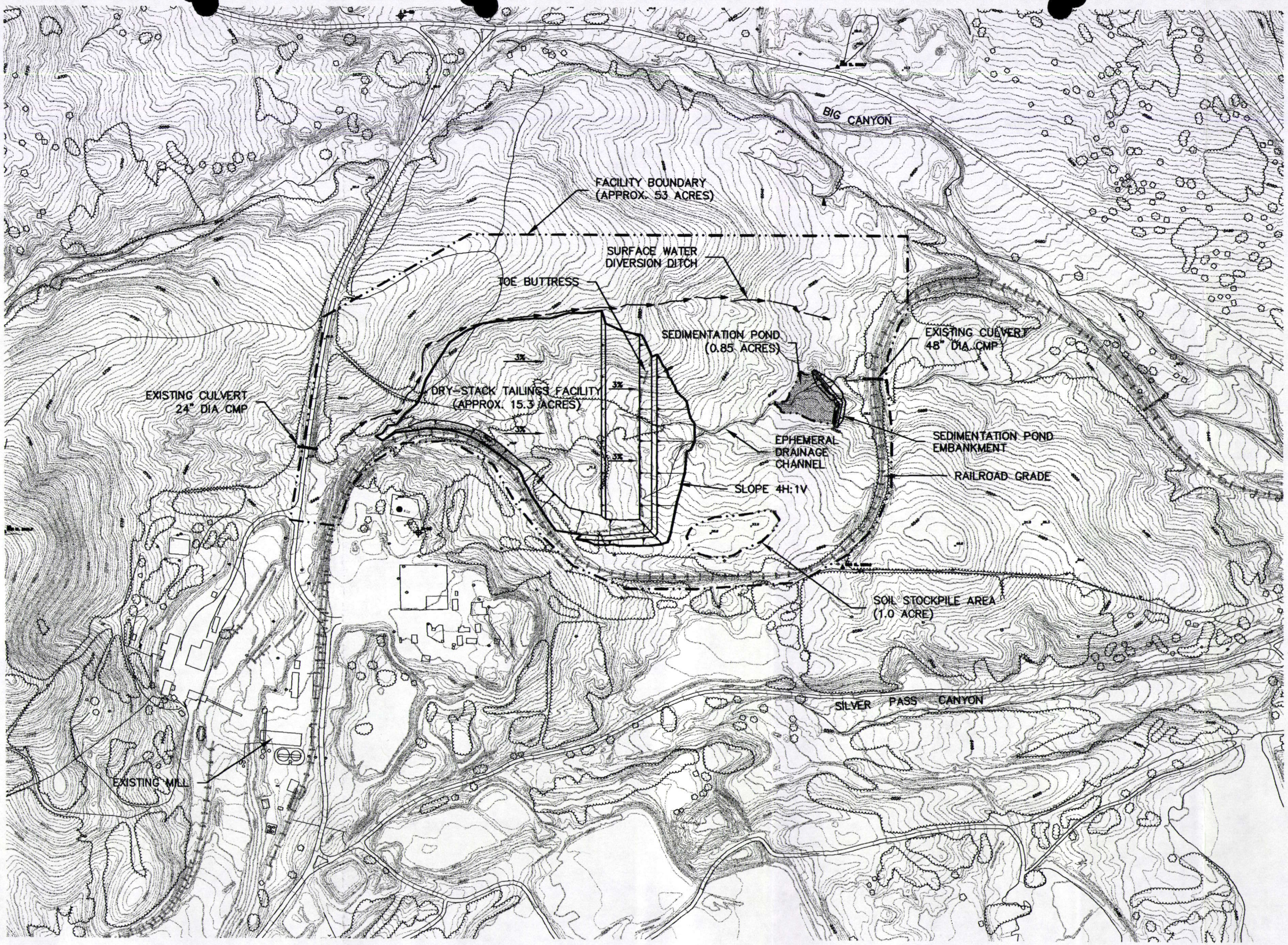


Exhibit D Dry Stack Tailings Area



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CONCEPTUAL DRY STACK TAILINGS FACILITY
GENERAL SITE MAP

PROJECT: 024.9801	DATE: 11/3/99	FIGURE NO: 1.1

FACILITY BOUNDARY
(APPROX. 53 ACRES)

SURFACE WATER
DIVERSION DITCH

SEDIMENTATION POND
(0.85 ACRES)

EXISTING CULVERT
48" DIA CMP

EXISTING CULVERT
24" DIA CMP

SEDIMENTATION POND EMBANKMENT

SLOPE 4H:1V

SOIL STOCKPILE AREA
(1.0 ACRE)

3%

TP-1 TP-2 TP-3 TP-4 TP-5 TP-6 TP-7 TP-8 TP-9 TP-10 TP-11 TP-12 TP-14 TP-15 TP-16 TP-17 TP-18 TP-19 TP-20 TP-21 TP-22 TP-23 TP-24 TP-25 TP-27 TP-28

MW-06

MW EL. 5536.5

SCALE IN FEET
0 100 200

CONTOUR INTERVAL 2 FEET

N

LEGEND

EXISTING GRADE 5560

BEDROCK GRADE 5520

FINAL GRADES 5580

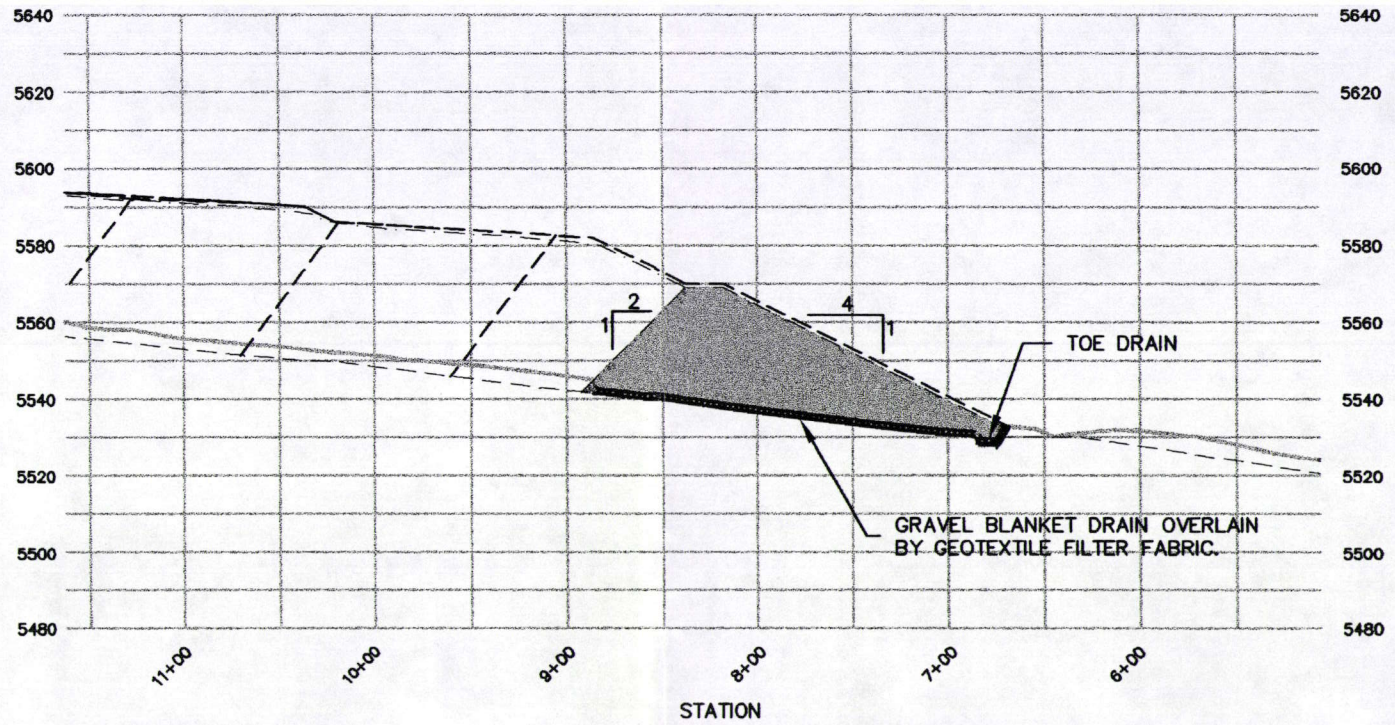
TEST PIT TP-18

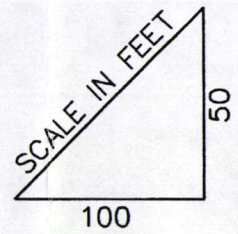
CULVERT

FIGURE4-1.DWG

CONCEPTUAL DRY STACK TAILINGS FACILITY
PLAN

PROJECT: 024.9801	DATE: 11/3/99	FIGURE NO: 4.1





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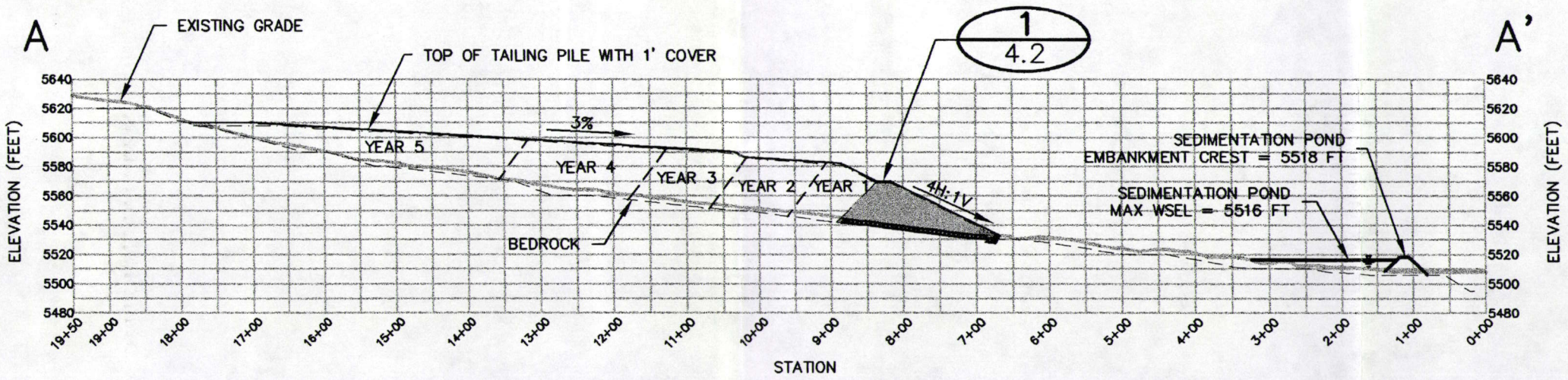
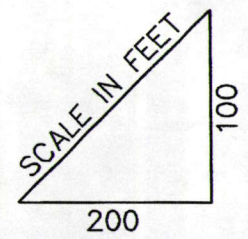
4.2

TOE BUTTRESS DETAIL





CONCEPTUAL DRY STACK TAILINGS FACILITY
PROFILE

PROJECT: 024.9801	DATE: 11/3/99	FIGURE NO: 4.2

FIGURE4-2.DWG